

CLAIM AMENDMENTS

1. (Original) An isolated mammalian c-kit-/c-met- cardiomyocyte precursor cell of muscular origin.
2. (Original) The cell of claim 1, wherein the cell is a human cell.
3. (Original) The cell of claim 1, wherein the cell is a mouse cell.
4. (Original) The cell of claim 1, wherein the cell is from a fetus, a child, or an adult.
5. (Original) The cell of claim 1, wherein the cell is in suspension.
6. (Original) The cell of claim 1, wherein the cell is between about 3 μm and 10 μm in diameter.
7. (Original) The cell of claim 6, wherein the cell is approximately 4 μm in diameter.
8. (Original) The cell of claim 1, wherein the cell differentiates into a cardiomyocyte.
9. (Original) The cell of claim 1, wherein the cell differentiates into a spontaneously beating cardiomyocyte.
10. (Original) The cell of claim 1, wherein the cell is transduced with a viral vector.
11. (Original) The cell of claim 1 wherein the viral vector comprises a heterologous nucleic acid.

12. (Original) The cardiomyocyte of claim 8, wherein the cardiomyocyte expresses GATA-4, troponin-T, L-type calcium channel, or Nkx2.5, or a combination thereof.

Please cancel claims 13-24

25. (Original) A mammalian c-kit-/c-met- cardiomyocyte precursor cell of muscular origin isolated according to the method of claim 13.

Please cancel claims 26-42

43. (Original) A pharmaceutical composition comprising mammalian c-kit-/c-met- cardiomyocyte precursor cells of muscular origin in a pharmaceutically acceptable carrier.

44. (Original) A method for screening for an agent to determine the effect of the agent on a cardiomyocyte comprising:

providing mammalian c-kit-/c-met- cardiomyocyte precursor cells of muscular origin;

contacting the cells with the agent; and

observing the effect of the agent on the cells.

45. (Original) The method of claim 44, wherein observing the effect comprises determining the effect of the agent on differentiation of the cells.

46. (Original) The method of claim 45 wherein determination of the effect on differentiation comprises assaying expression of GATA-4, expression of cardiac troponin-T, expression of L-type calcium channel, or expression of Nkx2.5, or a combination thereof.

47. (Original) The method of claim 45, wherein observing the effect comprises assaying a parameter of cardiomyocyte function of the cells.

48. (Original) The method of claim 47 wherein the parameter comprises spontaneous beating of the cells.

49. (Original) A kit for promoting cardiomyocyte differentiation, comprising a container containing a purified population of mammalian c-kit-/c-met- cardiomyocyte precursor cells of muscular origin.

50. (Original) The kit of claim 49, further comprising a container containing a growth factor, a container containing a culture medium, instructions for using the kit, or any combination thereof.
